



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,653	07/07/2003	Andrew Kim	1938-016	7515

20529 7590 12/27/2006
NATH & ASSOCIATES
112 South West Street
Alexandria, VA 22314

EXAMINER

BACHMAN, LINDSEY MICHELE

ART UNIT	PAPER NUMBER
----------	--------------

3734

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/614,653

Applicant(s)

KIM, ANDREW

Examiner

Lindsey Bachman

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10-27-03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 5 objected to because of the following informalities: Applicant refers to "the trailing of said opening"; Examiner believes this mean to be written "the trailing edge of the said opening," in order to be consistent with the specification and will examine accordingly. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 14 recites the limitation "said lumen" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Luscher (US Patent 6,299,590).

7. Luscher'590 discloses a device containing a syringe (see Figure 5) containing a barrel (31) and a plunger (32) and a connector (35) capable of being detachably mounted to a needle (17). The barrel is sized and shaped for holding a suture and the fluid used for expelling the suture (column 1, line 45-57). Further, the device contains an elongated cannulated needle (17) (column 4, line 66-67) capable of receiving and releasing a suture (column 4, line 55-67). The distal end of the needle (4) can have a sharp distal point (see Figure 5) and is configured to receive a suture extending from the lumen of the needle.

8. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoon (US Patent 6,099,550).

9. Yoon'550 discloses a suturing instrument containing an elongate tubular member (34), first and second jaws (38, 40) that are movable relative to each other (column 5, lines 58-65) and have openings (68, 68). The jaws are movable relative to each other with handles (44, 46) (column 5, lines 58-65). Further, Yoon'550 discloses a syringe (84) having a needle (44) that extends through the elongated tubular member towards the jaws and is capable of receiving a suture (column 5, lines 26-29).

10. Claims 1 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Haber (US Patent 5,275,614).

11. Claim 1: Haber'614 discloses a syringe having a barrel (72) and a plunger (78) and a connector (24) for mounting a needle (40), in which the barrel is capable of

Art Unit: 3734

receiving a suture. Further, Haber'614 discloses an elongated cannulated suturing needle (40) capable of receiving a suture; and the distal end containing a sharp point (118).

12. Claim 8: Haber'614 discloses a cover (8) over most of the needle

13. Claim 9: Haber'614 discloses a forceps having a distal end with jaws (26, 28) and a proximal end with jaws (14, 16) and a lumen extending between the proximal and distal end for passage of a needle (40). Haber'614 discloses that the jaws have an opening enabling passage of the needle through the tissue grasped in the jaws (see Figure 6, 6a-6b).

14. Claim 10: Haber'614 discloses that the needle has a curved end (see Figure 6).

15. Claim 11: The lumen disclosed by Haber'614 is circular (see Figure 1).

16. Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Haber'614.

17. Claim 12: Haber'614 discloses an elongate tubular member (8) having a distal end and a proximal end; a pair of first and second jaws (26, 28) movable relative to one another (column 3, lines 5-47) with handles (16, 18); a syringe (72, 78) having a needle (40) capable of going through the passage to the jaws (see Figure 1, 3) wherein the syringe is capable of holding liquid and sutures.

18. Claim 13: Haber'614 discloses that the needle has a curved end (see Figure 6).

19. Claim 14: The lumen disclosed by Haber'614 is circular (see Figure 1).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

22. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luscher'590, as applied to Claim 1, in further view of Craig (US Patent 6,626,917).

23. Luscher'590 teaches the limitations of Claims 2-4 except for a curved distal end of the needle.

24. Craig'917 teaches that curved, cork screw and hooked suturing needles are well known in the art because they are more time efficient than traditional straight needles (column 5, lines 13-21). It would have been obvious to one skilled in the art at the time the invention was made to use curved suture needles because they are more efficient than straight needles.

Art Unit: 3734

25. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luscher'590, as applied to Claim 1, in further view of Sontag (US Patent 5,236,443).

26. Luscher'590 teaches the limitations of Claim 5 except for a rounded tip of a suture needle.

27. Sontag'443 teaches a suturing with openings at the end that are slightly rounded to protect the surgeon from accidental cuts or punctures (column 4, lines 15-21). It would have been obvious to one skilled in the art at the time the invention was made to use rounded needles in order to protect the user from accidental cuts.

28. Claims 6-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Luscher'590 and Sontag'443, as applied to Claim 5, in further view of Craig'917.

29. Luscher'590 and Sontag'443 teach the limitations of Claims 6-8 except for the use of curved needle.

30. Craig'917 teaches that curved, cork screw and hooked suturing needles are well known in the art because they are more time efficient than traditional straight needles (column 5, lines 13-21). It would have been obvious to one skilled in the art at the time the invention was made to use curved suture needles because they are more efficient than straight needles.

31. Claims 15, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weng (US Patent 5,569,270) and Luscher'590.

32. Weng'270 teaches a method of suturing which includes providing an elongate needle (46) having a lumen extending from the proximal end to the distal end that is

Art Unit: 3734

capable of passing a suture (column 2, lines 45-60). Suture material is introduced into the needle (column 2, lines 54-56 and column 3, lines 55-63). Liquid fills the syringe, the needle is passed through the tissue to be sutured and the suture is expelled with the force of the liquid flow (column 2, lines 45-60). Weng'270 discloses a stiffening cover (60) that covers most of the needle (see Figure 1). Weng'270 does not teach a syringe to expel the liquid.

33. Luscher'590 teaches a syringe for expelling the liquid and the suture because this device is well known for expelling fluid, contains space for holding a suture, and is easily controlled by the user. It would have been obvious to one skilled in the art at the time the invention was made to modify the fluid control device taught by Weng'590 with a syringe taught by Luscher'590 because syringes provide a simple means for expelling liquid that is very controllable by the user.

34. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Weng'270 and Luscher'590, as applied to Claim 16, in further view of Craig'917.

35. Weng'270 and Luscher'590 teach the limitations of Claim 17 except for the use of a curved needle.

36. Craig'917 teaches that curved, cork screw and hooked suturing needles are well known in the art because they are more time efficient than traditional straight needles (column 5, lines 13-21). It would have been obvious to one skilled in the art at the time the invention was made to use curved suture needles because they are more efficient than straight needles.

Art Unit: 3734

37. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weng'270 and Luscher'590, as applied to Claim 15, in further view of Haber'614.

38. Weng'270 and Luscher'590 teach the limitations of Claims 19 and 20 except for the use of a forceps.

39. Haber'614 teaches a an elongate tubular member (8) having a distal end and a proximal end; a pair of first and second jaws (26, 28) movable relative to one another (column 3, lines 5-47) with handles (16, 18); a needle (40) capable of going through the passage to the jaws (see Figure 1, 3) wherein the syringe is capable of holding liquid and sutures. The method includes grasping tissue in order t suture it (column 7, lines 60-68). Further Haber'614 the lumen taught by Haber'614 is circular. It would have been obvious to one skilled in the art at the time the invention was made to combine the device taught by Weng'270 and Luscher'590 with the forceps taught by Haber'614 because the forceps allow the user to grasp the tissue while suturing it. Further, the elongated forceps allow suturing to be performed at a remote or hard-to-access location.

Conclusion

40. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Luscher (6,440,098), Rosch (WO 2004/034867).

Art Unit: 3734

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lindsey Bachman whose telephone number is 571-272-6208. The examiner can normally be reached on Monday to Thursday 7:30 am to 5 pm, and alternating Fridays.

42. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on 571-272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

43. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lb



MICHAEL J. HAYES
SUPERVISORY PATENT EXAMINER

